World Journal of Pharmaceutical and Life Sciences
WJPLS
www.wjpls.org
SJIF Impact Factor: 6.129

A CASE STUDY:- CLINICAL CHARACTERISTICS AND CO-MORBID CONDITION OBSERVED ON YEMENI PATIENTS WITH HEART FAILURE

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Article Received on 05/11/2021 **Article Revised on 26/11/2021** **Article Accepted on 16/12/2021**

ABSTRACT

There is a shortage of data about acute heart failure (AHF) in the young, including its underlying causes, clinical presentation and outcomes. We aim to describe clinical characteristics, causes and outcomes of HF in Yemeni patients . The study founded 11 Male and 25female patient with HF the diagnosis showed the increase of the hypertension in patients which equal 36 (45.90%) and 9 male and 4 female patient with HF the reason was MI which equal 13 (16.25%) and 2male 6 female patient with HF the reason was unknown reasons which equal 8(10%) and 9male 14female patient with HF the IHD which equal 23(28.75%) , with 38 patient with HF the diagnosis showed the increase of the in Diabetes Mellitus in patients which equal 38 (47.5%) and 17 patient with HF the reason was Renal dysfunction which equal 17 (21.25%).

KEYWORDS: acute heart failure - Renal dysfunction - coronary artery disease.

INTRODUCTION

Heart failure (HF) may be defined as an abnormality in cardiac structure or function that leads to the failure of the heart to deliver oxygen at a rate commensurate with the requirements of the metabolizing tissues, despite normal filling pressures (or only at the expense of increased filling pressures) [Dickstein K et al .,2008]. Clinically, it may be defined as a syndrome in which patients have typical symptoms (e.g., breathlessness, ankle swelling, and fatigue) and signs (e.g., elevated jugular venous pressure, pulmonary crackles, and displaced apex beat), resulting from an abnormality in cardiac structure or function [McMurray et al., 2012].

Unfortunately, significant portion of heart failure stems from use of several drugs and medications. Indeed, the cardiac muscle is widely known as a target of injury for many drugs and many other chemical compounds. Following their cardiotoxic action, these could be divided into two relevant categories: i) drugs and cardiotoxic substances leading to heart failure in terms of abrupt contractile performance, and ii) drugs affecting ion channels or pumps and, in most cases, leading to prolongation of cardiac repolarisation and to increased risk of severe cardiac arrhythmias and premature death. The present study was to determine the main causes, treatment and medication of Heart Failure and identify drugs can cause Heart Failure.

PATIENTS, MATERIALS AND METHODS

The study was conducted in the main Sana'a hospitals, namely Althorah and the Modern German The evaluation included history of the disease, clinical examination and laboratory investigations that included some biochemical tests. Histopathology was not available during the study period.

The medical records study which started in January 2018 and ended in March 2018 was conducted in Sana'a city on a total of 160 patinas.

All analyses were performed using EXCEL data sheet, Microsoft office 2011. Categorical variables are presented as counts and percentages.

RESULTS

In this research we noticed there are many of reasons that can cause HF (Table 1) we founded 36 Male and 23female patient with HF the diagnosis showed the increase of the hypertension in patients which equal 59 (73.75%) and 7 male 3female patient with HF the reason was MI which equal 10 (12.5%) and 1male 0female patient with HF the reason was CAD which equal 1(1.25%)) and 5 male 2 female patient with HF the heart arrhythmias which equal 7(8.75%)) and 0 male 1 female patient with HF the reason was IHD which equal 1(1.25%) and 2male 0 female patient with HF the reason was ACS which equal 2(2.5%).

Table 1: Causes of heart failure patient in Athorah Hospital.

Diagnosis	% Patients No and	Male	Female
Hypertension	59 (73.75%)	36	23
M I	10 (12.5%)	7	3
CAD	1(1.25%)	1	0
heart arrhythmias	7(8.75%)	5	2
IHD	1 (1.25%)	0	1
ACS	2 (2.5%)	2	0

Table 2 showed the Co-morbid condition observed in HF. we founded 38 patient with HF the diagnosis showed the increase of the in Diabetes Mellitus in patients which equal 38 (47.5%) and 17 patient with HF the reason was Renal dysfunction which equal 17 (21.25%) and 11 patient with HF the reason was BP which equal 11(13.75%) and 10 patient with HF the Respiratory comorbidities which equal10(12.5%) and 3 patient with HF the reason was Chest pain and dizziness which equal 2(2.76%) and 1 patient with HF the reason was no which equal 2(2.5%).

Tabie 2: Co-morbid condition observed in patients with HF in Athorah Hospital.

Disease	Numbers	Percentage
Diabetes Mellitus	38	47.5%
Renal dysfunction	17	21.25%
Blood pressure	12	15 %
Respiratory comorbidities	10	12.5
Chest pain and dizziness	3	2.76
Total	80	100

In the study Modern German Hospital patients are summarized in Table 3 .we founded 11 Male and 25female patient with HF the diagnosis showed the increase of the hypertension in patients which equal 36 (45.90%) and 9 male and 4 female patient with HF the reason was MI which equal 13 (16.25%) and 2male 6 female patient with HF the reason was Unknown reasons which equal 8(10%) and 9male 14female patient with HF the IHD which equal 23(28.75%).

Table 3: causes of heart failure in Modern German Hospital.

Diagnosis	% Patients No and	Male	Female
Hypertension	36 (45.90%)	11	25
MI	13 (16.25%)	9	4
Unknown reasons	8 (10%)	2	6
IHD	23(28.75%)	9	14

There were co-morbid conditions as showed in table (4) of the study the diagnosis showed the increase of the Diabetes mellitus in patients which equal 29 (36.25%) and 13 patients with HF the reason was renal dysfunction which equal 13(16.25%) 19 patients with HF the reason was Blood pressure which equal 19(23.75%) 17 patients with HF the Respiratory comorbidities which equal 17(21.25%) and 2 patients with HF the arthritis which equal 2(2.5%).

Table 4: Co-morbid condition observed in patients with HF failure in Modern German Hospital.

Disease	Numbers	Percentage
Diabetes mellitus	29	36.25%
Renal dysfunction	13	16.25%
Blood pressure	19	23.75 %
Respiratory comorbidities	17	21.25%
Arthritis	2	2.5%
Total	80	100

DISSCUATION

Heart failure (HF) is well known in the Western world to cause high morbidity and mortality [Dickstein K et al., 2008]. Cardiovascular diseases, in particular heart failure, are on the top as a cause of mortality worldwide, including medium and low income countries [Mathers CD & Loncar D, 2006]

In this study Diabetes mellitus (DM) was present in 47.5% AND 36.25% of our patients and this was observed in the same way by Berry et al who reported DM in 24% of his HF cases [Berry C, 2008]

Diabetes mellitus, hypertension and dyslipidemia were more prevalent in this cohort. Our clinical findings are consistent with and confirm those from other reports [Berry Cn 2009, Labinaz M 2002, Labinaz M 2001]; though among Middle Eastern patients our study uncovered a higher frequency of hypertension and diabetes than previously observed elsewhere [Berry Cn 2009, Labinaz M 2002, Franklin K 2004].

The first demonstration of an increased risk of HF in patients with DM was reported by Kannel and McGee, 1997.

Other risk predictors include high class dyspnea of New York Heart Association (NYHA), male sex, low diastolic blood pressure [Pocock SJ, 2005].

In the current study, 21.25% + 16.25% HF patients had evidence of renal dysfunction which is reported that it is associated with adverse outcome in HF and this may be due to increased retention of fluid and salts, effect of HF on peripheral vessels and because of limited use of life-saving intervention in HF like use of ACE inhibitors which were stated to induce renal impairment [Dries DL, 2000].

CONCLUSIONS

We conclude that there are serious diagnostic and therapeutic problems in our health-care system that need

addressing in order to improve the care of our HF patients and it intended to help in the understanding the causes of Heart failure (HF).

ACKNOWLEDGEMENT

I would like to thank the student of the Faculty of Pharmacy - Yemen Jordanian University for the assistance paper finished.

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